

April 13, 2010

**TO: INTERESTED PARTIES**

**ADDENDUM 3**

**SUBJECT: PON-09-007 –Reducing the Environmental Impact of Solar Energy**

**Public Interest Energy Research (PIER) Energy Research, Development and Demonstration**

**Notice Is Hereby Given That The Above Program Opportunity Notice Is Amended  
As Follows:**

- **Page 3, Table of Contents Number 3**
- **Page 5, Number 3: Deadline to submit Stage 2 applications has been extended**
- **Page 12, Table 1: Announcement of Stage 1 Results has been rescheduled**
- **Page 12, Table 1: Deadline to Submit Stage 2 Questions has been extended**
- **Page 12, Table 1: Post Stage 2 Questions and Answers to Website has been rescheduled**
- **Page 12, Table 1: Deadline to Submit Stage 2 Proposals has been extended**
- **Page 12, Table 1: Interview Applicants (if necessary) has been rescheduled**
- **Page 12, Table 1: Post Notice of Proposed Awards has been rescheduled**
- **Page 17, Number 21: Deadline to Submit Stage Proposals has been extended**
- **Page 19, Number 24: Deadline to Submit Stage 2 Questions has been extended**
- **Page 19, Number 24: Post Stage 2 Questions and Answers to Website has been rescheduled**

Attached:

PIER Application Package –PON-09-007, which includes red strikeout changes.

Except as herein amended, all other terms and conditions shall remain the same.

Crystal Presley-Willis

Grants and Loans Officer



CALIFORNIA  
ENERGY  
COMMISSION

PON-09-007

## Reducing the Environmental Impact of Solar Energy

**Research, Development and  
Demonstration**

**PIER Energy Related  
Environmental Research**

APPLICATION PACKAGE

Date: January, 2010



Arnold Schwarzenegger, Governor

## **ENERGY COMMISSION**

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## **GRANT SOLICITATION AND APPLICATION PACKAGE**

### **Public Interest Energy Research (PIER) Program Research, Development & Demonstration (RD&D)**

#### **Reducing the Environmental Impact of Solar Energy**

1. **Release Date:** January 19, 2010
2. **Stage 1 Proposal Due Date:** March 3, 2010 at 4:00 p.m.
3. **Stage 2 Proposal Due Date:** ~~April 21, 2010 at~~ May 6, 2010 at 4:00 p.m.

#### **4. Purpose of Program**

Executive Order S-14-08 directs state government agencies to take all appropriate actions to help achieve California's Renewable Portfolio Standard (RPS) goal, which requires retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020. Utility scale solar developments ( $\geq 20$  MW) are crucial to achieving this ambitious RPS goal. However such developments have large land and water requirements and can have negative impacts on delicate ecosystems and vulnerable species, particularly in the desert. To help address potential impacts of new renewable power plants and related transmission lines, the Energy Commission and California Department of Fish and Game are implementing Executive Order S-14-08 which establishes a process to conserve natural resources while expediting the permitting of renewable energy facilities. A science-driven Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado Deserts of California is being prepared which is intended to become the state road map for renewable energy project development that will advance state and federal conservation goals while facilitating the timely permitting of renewable energy projects in these desert regions.

To advance the DRECP, streamline environmental review and permitting, and help inform the process of solar project siting and development, research is needed that would help minimize the biological impacts of solar projects within the Mojave and Colorado Desert Regions. Environmental review of recent solar applications has raised several unresolved issues related to the analysis and mitigation of biological impacts. Resource agencies typically recommend that unavoidable impacts to sensitive species be compensated through land acquisition at a ratio that offsets the impact (i.e., compensation land acreage equal to a multiplier of the impacted acreage). In the case of land-intensive solar development, acquiring sufficient acreage of available and appropriate habitat compensation lands is considered a daunting task fraught with logistical difficulties such as multiple landowner negotiations, unwilling sellers and increasingly limited availability of suitable acquisition lands. Alternative and innovative mitigation measures other than land acquisition are needed to offset negative impacts by California solar energy projects on special-status plants and animals and sensitive plant communities.

In addition to land acquisition, resource agencies typically require relocating sensitive wildlife species such as desert tortoise or burrowing owl to avoid direct construction impacts, and also frequently recommend mitigation measures in addition to land acquisition (for example, fencing, habitat restoration, changes in grazing practices). The efficacy of these mitigation measures in avoiding or offsetting the biological impacts has

yet to be firmly established through scientific study. The long-term consequences of translocation on species abundance and viability also need additional research.

Another challenge in analyzing the biological resource impacts of solar development is the lack of detailed distribution information for sensitive plants and animals, which is needed to inform compensation land locations and to assess a solar project's impacts in a rangewide perspective. Currently, for most sensitive desert species, biologists do not have science-based numerical thresholds for population viability upon which to assess impacts or recommend appropriate levels of mitigation. Research on what percentage of a sensitive species population can be impacted without affecting species or population viability is lacking. Moreover, establishing a methodology and widely accepted and biologically meaningful scope for cumulative impact analyses of solar development's impacts on biological resources is also a challenge often encountered in the environmental review process.

Research on the following topics will help resolve some of the scientific uncertainties about the biological impacts of utility-scale solar energy development in California's deserts, and will inform the process of project siting and development. This is a competitive grant solicitation sponsored by the California Energy Commission's Public Interest Energy Research (PIER) Energy-Related Environmental Program to investigate one or more of the following:

- A. Innovative mitigation strategies other than land acquisition that would effectively offset the negative impacts of California solar energy development on special-status species and sensitive plant communities; and/or rigorous validation of and/or improvements to frequently recommended mitigation measures (for example, habitat restoration, fencing).
- B. New or enhanced habitat suitability models that help to: predict the distribution of special-status plants and animals and sensitive plant communities within the Mojave and Colorado Desert regions; evaluate the impact of solar energy technologies, plant designs, and/or solar project site selection on special-status plants and animals and sensitive plant communities; and provide planning tools to assist in the siting, design, permitting, and mitigation of solar energy projects.
- C. An improved impact assessment on species abundance and viability of relocating desert tortoise and/or other special-status plants and animals away from solar energy sites using currently established protocols; and/or develop improved protocols for relocation.
- D. Numerical thresholds for viability of listed species populations (i.e., minimum viable population size) in regions within the Mojave and Colorado Desert regions targeted for utility scale solar energy development.
- E. A new or improved framework for conducting cumulative impacts analysis of solar energy development on sensitive biological resources.

## **5. Availability of Solicitation Documents and Information**

This solicitation and all supporting documents and forms can be found at <http://www.energy.ca.gov/contracts/index.html> under "Current Solicitations." Interested parties may also register on the electronic mailing list on this webpage to receive notifications of any changes to this solicitation.

For those parties without internet access, copies of solicitation documents and information can be obtained by contacting:

Crystal Presley-Willis  
Grant Officer  
Budgets, Contracts, Grants and Loans  
California Energy Commission  
1516 Ninth Street, MS-1  
Sacramento, CA 95814  
Telephone: (916) 654-5067  
Email: [cpresley@energy.state.ca.us](mailto:cpresley@energy.state.ca.us)

In addition, you may request to be added to the mailing notification list to receive changes made to this solicitation.

## **6. Background**

The PIER Program, administered by the California Energy Commission, funds selected public interest energy RD&D efforts that advance energy science and technology and help improve the quality of life in California by bringing environmentally safe, affordable and reliable energy services and products to the marketplace. The PIER has more than \$80 million in annual funding from California's electricity and natural gas ratepayers to conduct the most promising public interest energy research. It partners with RD&D organizations, including individuals, businesses, utilities, and public or private research institutions. PIER brings new energy services and products to the marketplace and creates state-wide environmental and economic benefits. PIER funding efforts are focused on the following RD&D program areas:

- Buildings End-Use Energy Efficiency (Buildings)
- Climate Change Program
- Energy Innovations Small Grant Program
- Energy-Related Environmental Research
- Energy Systems Integration
- Advanced Generation
- Industrial/Agricultural/Water End-Use Energy Efficiency
- Renewable Energy Technologies
- Transportation Research

Significant energy issues have been identified for each of the PIER program areas. The PIER program focus has been directed towards resolving these issues and meeting the overall PIER objectives of improving affordability, reliability, health and safety of California's energy systems, strengthening California's economy, and creating favorable environmental outcomes, and consumer choices relevant to electricity and natural gas supply and use in California.

The PIER Energy-Related Environmental Research Area (PIER-EA) facilitates research in air quality, aquatic resources, terrestrial resources, and global climate change. The goal of this research area is to provide the tools and/or scientific knowledge to avoid or mitigate environmental impacts from energy generation, transmission, and consumption. In addition to addressing suspected and documented environmental impacts of energy, PIER-EA provides basic scientific information and tools needed to understand the environmental implications of technology and fuel types to inform the R&D choices undertaken elsewhere in the PIER Program.



This grant solicitation is intended to address the technical and scientific areas relevant to reducing the environmental impacts of solar power projects, particularly in desert habitats. The proposals must advance the state-of-the-art in a novel manner not currently addressed by the public and/or private entities. This grant is not intended for proposals that are currently receiving adequate funding by external private or public sources.

#### **7. Eligible Projects**

The Energy Commission is seeking proposals to help reduce the environmental impacts of solar energy projects in California, particularly with respect to biological impacts. Proposals should reflect a comprehensive understanding of the current state of technologies in solar energy, the environmental issues surrounding solar development, and must represent a novel technology, design, or approach that is not adequately addressed by the competitive market. Proposals must demonstrate that the research results will advance state and federal conservation goals while facilitating the timely permitting of renewable energy projects in California desert regions. Proposals must also demonstrate a potential benefit to electricity ratepayers in California.

PIER cannot fund research projects that are solely intended to meet the requirement of a regulatory permitting process. Research funded through this solicitation is intended to advance our understanding of the interactions of large scale solar development and ecological processes in the California desert and must result in benefits that meet this intent and are beyond any site specific considerations.

#### **8. Eligible Applicants**

This solicitation only seeks proposals from private entities, including non-profit organizations and private universities, actively involved in solar energy research, development and demonstration as well as research into the environmental impacts of solar energy. Although public entities, such as national laboratories and public universities, cannot apply to this grant solicitation, they can participate as subcontractors to private-entity applicants. To be eligible, applicants must present a team with demonstrated capabilities in successful completion of research, development and demonstration projects.

While there is no requirement for applicants to reside in California proposed demonstration sites and/or field work must be located in Mojave, Sonoran, or Colorado Desert habitats relevant to California, and the project must directly benefit California's electric and/or natural gas ratepayers. California business entities as well as non-California business entities conducting intrastate business in California are required to register and be in good standing with the California Secretary of State to enter into a funding agreement with the Energy Commission. If not currently registered with the California Secretary of State, Applicants are encouraged to contact the Secretary of State's Office as soon as possible to avoid potential delays in beginning the project if successful under this solicitation. For more information, contact the California Secretary of State via their website at [www.sos.ca.gov](http://www.sos.ca.gov).

## **9. Funding Information**

Up to \$1.0 million of PIER Electricity funding is available under this solicitation for grant awards. A minimum of \$150,000 is available to Applicants per grant project with a maximum award of up to \$1.0 million. If a high number of exceptional, desirable projects are proposed, the Energy Commission may release additional funds to fund additional projects under this solicitation.

## **10. Match Funding Requirements**

Match funding equivalent to 15% of the requested PIER funding is required either in cash or in-kind. Proposals having greater match funding are desirable and will be scored higher in the second stage of the application process as described by the second stage Scoring Criteria given in Attachment H under category 3) **"The Project Description..."** It is also desirable to have match funds utilized first especially for purchase of equipment and hardware and for any out of state travel.

## **11. Payment of Prevailing Wage**

Some projects under this solicitation might be considered public works pursuant to the California Labor Code. If the project is a public work, prevailing wage is required. The California Department of Industrial Relations (DIR) has jurisdiction to decide whether a particular project is or is not a public work. If your project involves construction, alteration, demolition, installation, repair or maintenance work, it probably would be considered by DIR to be a public work. A few of the activities that would probably lead DIR to find that the project involves public works include: cement work; site preparation such as grading; surveying; electrical work such as wiring; and carpentry work. Certain workers are entitled to prevailing wage, such as operating engineers, surveyors, carpenters, laborers, etc. However, other trades are not entitled to prevailing wage, such as engineers and project superintendents.

Applicants are encouraged to determine if the proposed project involves public works as soon as possible. In order to determine if the proposed project involves public works, you will need to contact DIR. If the Applicant is unsure whether the proposed project involves public works and has not received a determination from DIR that the project is not a public work, the proposed budget must provide for the payment of prevailing wages. Please indicate whether the proposed budget includes prevailing wage.

If the proposed project is a public work, DIR maintains a list of covered trades and the applicable prevailing wage. The grant agreement will include the requirements for a public works project, such as paying prevailing wage, keeping payroll records, complying with working hour requirements, and apprenticeship obligations. See section 10 in the sample terms and conditions referenced in Attachment N, and the accompanying Attachments K (Prevailing Wage), L (Prevailing Wage Compliance Certificate), and M (Prevailing Wage Compliance Questions and Answers) for more information regarding prevailing wage and the process to determine if the proposed project is a public work.

## **12. California Environmental Quality Act (CEQA)**

Some of the projects selected for funding may meet the definition of a “project” for purposes of CEQA (see Public Resources Code section 21000 et seq.). If this occurs, the Energy Commission’s Legal Staff will review the projects to determine whether an exemption applies that would prevent further actions under CEQA. If no exemption applies, certain CEQA requirements (e.g., preparation of a negative declaration or environmental impact report) will have to be met prior to the Energy Commission approving the grant. The Applicant will have to pay the cost for these activities (please refer to Title 20, California Code of Regulations, Chapter 6, Article 1, including section 2308).

## **13. Selection of Projects and Award Process**

This grant solicitation will follow a two-stage selection process. The first stage is a request for abstracts, which consists of a maximum eight (8) page project abstract that will be scored on a pass/fail basis (Attachment G).

If the proposal passes the first stage selection process, it will be allowed to progress to the second stage involving submission of a complete formal proposal. The first stage ensures that only those research, development and demonstration projects that are novel and feasible submit the complete application.

The ability to procure a test site is an important requirement for those proposals involving field work or technology demonstration that must be met to both participate in this grant solicitation and receive funding for a submitted proposal. It is strongly recommended that the Applicant clearly address this issue in both stages of the project selection process.

The following process will be utilized to recommend project(s) for funding:

- A. During the initial screening (stage 1), a maximum eight (8) page abstract will be submitted by potential Applicants. These abstracts will be scored on a Pass/Fail basis using the initial screening scoring criteria described in Attachment G. The scoring committee may seek input from technical reviewers both internal and external to the Energy Commission when evaluating abstracts.
- B. Only abstracts that successfully pass the initial screening stage (stage 1) will be allowed to submit a formal proposal (stage 2). A scoring committee will then score these proposals using the scoring criteria described in Attachment H. The scoring committee may seek input from technical reviewers both internal and external to the Energy Commission when evaluating proposals.
- C. The scoring committee may conduct optional interviews for clarification purposes in Stage 1 and Stage 2.
- D. A minimum score of 480 (out of 600) is required to be eligible for funding. In addition, pursuant to Public Resources Code Section 25620.5(h&i), the California Energy Commission’s Public Interest Energy Research (PIER) Program must give a priority to “California-based entities” (CBEs) when making awards. To implement this law, the Energy Commission will award preference points if the proposal meets the criteria for a CBE as described in Attachment I. The proposal must receive at least a passing score (480 points) prior to any CBE preference points being added.

- E. The scoring committee will submit the ranked list of proposals to the Energy Commission's Research, Development, and Demonstration (RD&D) Policy Committee for approval. The RD&D Policy Committee will recommend how far down the ranked list of passing proposals to fund.
- F. Additional funding above \$1.0 Million may be obtained to augment the funding amount for this solicitation. The RD&D Policy Committee will recommend how to allocate any additional funds. The Energy Commission reserves the right, at its sole discretion, to allocate additional funds among the categories in order to fund additional, passing projects.
- G. The Energy Commission reserves the right to negotiate with Applicant(s) to modify the project scope, level of funding, or both.
- H. If the Energy Commission is unable to successfully negotiate and execute a funding agreement with an Applicant, the Energy Commission, at its sole discretion, reserves the right to cancel the pending award and fund the next highest ranked eligible project in the same or other category.
- I. A Notice of Proposed Awards will be released.
- J. Project(s) recommended for funding will be scheduled and heard at an Energy Commission Business Meeting for approval.

If approved at an Energy Commission Business Meeting:

- K. Non-profit organizations that receive funding under this solicitation must provide an authorizing resolution approved by their governing authority to enter into an Agreement with the Energy Commission.
- L. A Grant Agreement, which includes applicable Terms and Conditions\*, will be written and sent to the Recipient(s) for review, approval, and signature.
- M. Once returned to the Energy Commission, the Energy Commission will fully execute the Grant Agreement. Recipient(s) are approved to begin the project only after full execution of the Grant Agreement.

\*

**The *PIER Grant Terms and Conditions* can be found at <http://www.energy.ca.gov/contracts/index.html> as part of this solicitation package. Applicants should read carefully the *PIER Grant Terms and Conditions*, especially the *royalty provisions section*. Please note, however, the Energy Commission reserves the right to modify the terms and conditions prior to executing grant agreements.**

#### 14. Schedule of Proposal and Award Process

**Table 1**

Release of Program Opportunity Notice & Application Manual	January 19, 2010
Pre-Proposal Workshop 2 <sup>nd</sup> Floor Conference Room – “Fishbowl”, 1 PM California Energy Commission 1516 Ninth St, Sacramento, CA 95814	January 28, 2010 See <b>January 28, 2010 Public Participation</b> below
Deadline to Submit Stage 1 Questions	February 2, 2010
Post Stage 1 Questions and Answers to Website	February 18, 2010
<b>Deadline to Submit Stage 1 Proposals</b>	<b>March 3, 2010</b> 4:00 p.m.
Interview Applicants (if necessary)	March 16, 2010
<b>Announcement of Stage 1 Results</b>	<del>March 23, 2010 (estimated)</del> <b>April 6, 2010</b>
Deadline to Submit Stage 2 Questions	<del>March 30, 2010</del> <b>April 20, 2010</b>
Post Stage 2 Questions and Answers to Website	<del>April 8, 2010</del> <b>April 28, 2010</b>
<b>Deadline to Submit Stage 2 Proposals</b>	<del>April 21, 2010</del> <b>May 6, 2010 4:00 p.m.</b>
Interview Applicants (if necessary)	<del>May 20, 2010</del> <b>May 27, 2010</b>
<b>Post Notice of Proposed Award</b>	<del>June 17, 2010 (estimated)</del> <b>June 24, 2010 (Estimated)</b>
Approval of Awards at Energy Commission Business Meeting	October 17, 2010 (estimated)

#### 15. Pre-Proposal Workshop

A proposal workshop will be held through in-person participation, WebEx, and conference call. Participation by prospective Applicants is optional. Please call (916) 653-2405 or refer to the Energy Commission's website at <http://www.energy.ca.gov/contracts/index.html> to confirm the date and time.

<b>Dates:</b> January 28, 2010	
<b>Time:</b>	3:00 p.m.
<b>Location:</b>	California Energy Commission 2 <sup>nd</sup> Floor Conference Room – “Fishbowl” 1516 Ninth Street Sacramento, California 95814 In-person and via WebEx
<b>See Instructions for Public Participation below.</b>	
<b>Telephone:</b>	(916) 653-2405

**Public participation may be done in-person, via WebEx, and/or conference call.**

To join the WebEx meeting, click the following link and enter the meeting number and password provided below:

**January 28, 2010 Public Participation**

Topic: Reducing the Environmental Impact of Solar Energy Solicitation

Date: Thursday, January 28th, 2010

Time: 3:00 pm.

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COMPUTER LOGON WITH A DIRECT PHONE NUMBER:

- Please go to <https://energy.webex.com> and enter the unique meeting number: 929 116 060
- When prompted, enter your information and the following meeting password: Jan28@3:00
- After you login, a prompt will appear on-screen for you to provide your phone number. In the Number box, type your area code and phone number and click OK to receive a call back on your phone for the audio of the meeting. International callers can use the "Country/Region" button to help make their connection.

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COMPUTER LOGON FOR CALLERS WITH AN EXTENSION PHONE NUMBER, ETC.

- Please go to <https://energy.webex.com> and enter the unique meeting number: 929 116 060
- When prompted, enter your information and the following meeting password: Jan28@3:00
- After you login, a prompt will ask for your phone number. CLICK CANCEL.
- Instead call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number which is listed in the top left area of your screen after you login. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

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TELEPHONE ONLY (NO COMPUTER ACCESS)

- Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from <https://energy.webex.com/energy/globalcallin.php>

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TECHNICAL SUPPORT

For help with problems or questions trying to join or attend the meeting, please call WebEx Technical Support at 1-866-229-3239.

System Requirements: To see if your computer is compatible, visit <http://support.webex.com/support/system-requirements.html> and refer to the "WBS 26 System Requirements" section at the bottom

Meeting Preparation: The playback of UCF (Universal Communications Format) rich media files requires appropriate players. To view this type of rich media files in the meeting, please check whether you have the players installed on your computer by going to <https://energy.webex.com/energy/systemdiagnosis.php>

Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

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#### CALENDAR

To add this meeting to your Microsoft Outlook or compatible calendar program, click the following link or copy the link and paste it into your Web browser:

<https://energy.webex.com/energy/j.php?ED=132259087&UID=1146397362&ICS=MI&LD=1&RD=2&ST=1&SHA2=2LeCmKP0lvYJS/5JYbQkFaK2-FdgMH3BwUxAbV4QNSI=>

#### 16. Abstract (Stage 1) Requirements

It is required that abstracts contain the following elements. *Failure to include these elements WILL result in your proposal not passing the initial screening.*

- Contact information, including but not limited to: contact person's name, title, entity legal name, physical address, telephone number, fax number, email address, etc.
- Abstract must address **each and every scoring criterion** as described in Attachment G.
- Limit abstracts to a maximum length of eight pages.
- Use a standard 12-point font and 1-inch or larger page margins and number the pages.

There are no restrictions on the number of abstracts an Applicant may submit for consideration under the 5 categories given in Attachment F as long as the abstracts are not variations of the same project.

#### 17. Abstract Submission

One (1) original and six (6) hard copies and one electronic copy on compact disk of the abstract must be received no later than the due date and time specified above in Table 1. Mail abstracts to:

California Energy Commission  
Grants and Loans Office  
Attn: Reducing the Environmental Impact of Solar Energy  
1516 Ninth Street, MS-1  
Sacramento, CA 95814

Postmark dates of mailing, electronic mail (E-mail), and facsimile (Fax) transmissions are not acceptable in whole or in part under any circumstances. The Energy Commission will reject all proposals not received by the Energy Commission's Grants and Loans Office by the designated deadline given in Table 1.

**Please allow time to deliver the proposal by the designated deadline. The Energy Commission has no flexibility to allow late submissions, even if only a few**

**seconds or minutes late. If hand delivering the proposal to the Energy Commission we encourage planning to arrive by 3:30 pm on the due date at the latest in order to allow for unforeseen difficulties with traffic or parking.**

## **18. Formal Proposal (Stage 2) Requirements**

It is required that proposals contain the following elements. *Failure to include these elements WILL result in your proposal receiving a lower score and MAY result in your proposal being rejected and not eligible for funding.*

### **A. Proposal Cover Page**

Applicants must complete and include Attachment A.

### **B. Executive Summary**

The maximum length of the Executive Summary is four (4) pages. The Executive Summary must include, at a minimum, project description, project objectives, and quantitative and measurable goals to be achieved.

### **C. Project Narrative**

- A clear statement of which targeted research area, as defined in "Attachment F," are addressed by the proposal.
- A detailed discussion of how the proposed project addresses each of the scoring criteria as described in the Attachment H. Provide sufficient detail so that reviewers will be able to evaluate the proposal against each of the criteria.
- Description of the current status of research in the area of the proposed project, barriers to advancement of the research area and why the proposed project is the next logical step to advance scientific understanding in the area of research.
- Show project collaboration and coordination, especially the pathway to wider use of the research products.
- Project budget information, including the source(s) and use of match funding, a justification for any in-kind match funding, and the reasons why this project is not likely to be funded by competitive or regulated markets.
- Any other significant factors to enhance the value of the proposal, including highlights of the previous work and innovative features related to the proposed project.

### **D. Statement of Work**

Applicants must include a completed Statement of Work following the template contained in Attachment B. Instructions for completing the Statement of Work template are included in Attachment .

Provide a description of quantified targets, goals and market and/or policy application. Explain the target market or area of policy, and the significance to solar energy developments, where the products of this research can be applied.



Statement of Work should provide anticipated direct and indirect benefits to California electricity ratepayers.

**E. Resumes and Background**

Short resumes, maximum of two (2) page(s) each, of the Principal Investigator (PI) and key research partners (individuals in your organization or subcontractors), emphasizing experience related to activities to be performed in the project.

Any prior or planned activities related to the permitting of desert-based energy projects by the applicant, its employees, or any subcontractors used for this proposal, shall be listed. The applicant shall also list any agreements or working relationships with anyone who has a permit application for a desert-based energy development that will be pending at the time of the grant award; and/or that is contesting a permit for a desert-based energy development that will be pending at the time of the grant award.

**F. Budget**

- Applicants must complete and include the budget forms referenced in Attachment D.
- The budget should allow for the expenses of a Kick-off Meeting, at least two Critical Project Review meetings, and a Final Meeting. It is anticipated that meetings will be conducted at the Energy Commission located in Sacramento, CA. Applicants should also budget for permits, insurance, etc and limit the funding source to match funds.
- The budgets should allow for the preparation and submission of monthly or quarterly progress reports (2-4 pages each) during the approved term of the agreement, and a final report that follows Energy Commission guidelines which can be found at: <http://www.energy.ca.gov/contracts/pier/contractors/index.html>.
- The budget must give estimates for costs to be incurred during the term of the project. Rates (e.g., unloaded hourly, fringe benefits, and overhead) specified in the budget are rate caps, or the maximum amount allowed to be billed. However, Recipients can only bill for the actual expenses incurred, not to exceed the rates specified in the Budget. The Energy Commission can only approve and reimburse expenditures for actual costs that are properly documented in accordance with the PIER Grant Terms and Conditions.
- The budget must NOT include any profit from the proposed project, either as a reimbursed item or as match share. In accordance with the PIER Grant Terms and Conditions, NO PROFIT IS ALLOWED UNDER GRANT AGREEMENTS. Please review the PIER Grant Terms and Conditions for additional restrictions and requirements.
- The purchase of equipment (items with a unit cost greater than \$5,000 and a useful life greater than one year) with PIER funds will require disposition of purchased equipment at the end of the project. Typically, Grant Recipients may continue to utilize equipment purchased with PIER funds as long as the use is consistent with the intent of the original grant Agreement, but this is not always the case. There are no disposition requirements for equipment purchased with match share funding.

#### **G. Schedule of Products and Due Dates**

Applicants must complete and include a Schedule of Products and Due Dates following the template specified in Attachment E. The Schedule of Products and Due Dates must be consistent with the information provided in the submitted Statement of Work.

#### **H. CBE Preference Points Form**

Eligible applicants wanting to receive California-Based Entity (CBE) preference points who meet the definition of a CBE (see Attachment I) must complete and submit the CBE Preference Points Questionnaire Form included as Attachment J of this solicitation.

#### **19. Proposal Guidelines (Stage 2)**

Proposals should adhere to the following guidelines. Failure to adhere to these guidelines MAY result in your proposal being rejected and not eligible for funding.

- A. Limit proposals to a maximum length of 50 pages.
- B. Use a standard 12-point font and 1-inch or larger page margins and number the pages.
- C. Project duration cannot be more than four years.
- D. All project expenditures (match share and reimbursable) must be expended within the approved term of the funding agreement.
- E. PIER funding requests per project must be a minimum of \$150,000 and cannot exceed \$1.0 Million.
- F. Provide hard copies of one (1) original and six (6) copies of the proposal and a CD containing all the documents related to the proposal. The original must be signed by an authorized representative of the Applicants organization. The original should be bound only with a binder clip; the other six (6) copies should be bound only with a staple in the upper left corner. No covers or other types of bindings are allowed.

#### **20. Confidential Information**

**NO** confidential information will be accepted during the proposal and selection phase of this solicitation. If any confidential information is submitted, the entire proposal **WILL** be rejected and will not be eligible for funding. Proposals containing confidential information will be returned to the Applicant.

While discouraged, Applicants may **propose** to deliver confidential products during the course of the project if funded. If necessary, instructions on submitting confidential products will be provided by the Energy Commission prior to executing the Grant Agreement.

#### **21. Submission Requirements**

Stage 2 proposals must be *received* by the Energy Commission's Grants and Loans Office by **4:00 p.m. on ~~April 21, 2010~~ May 6, 2010**. Proposals must be mailed or delivered to:

California Energy Commission  
Grants and Loans Office  
Attn: PIER Energy-Related Environmental Program  
Reducing the Environmental Impact of Solar Energy  
1516 Ninth Street, MS-1  
Sacramento, CA 95814

Postmark dates of mailing, electronic mail (E-mail), and facsimile (Fax) transmissions are not acceptable in whole or in part under any circumstances. The Energy Commission will reject all proposals not received by the Energy Commission's Grants and Loans Office by the stated due date and time given in Table 1. Please allow time to deliver the proposal by the designated deadline. **The Energy Commission has no flexibility to allow late submissions, even if only a few seconds or minutes late.** If hand delivering the proposal to the Energy Commission we encourage planning to arrive by 3:30 pm on the due date at the latest in order to allow for unforeseen difficulties with traffic or parking.

Applications that do not include at least one (1) signed original and six (6) copies or have not been received by the Energy Commission by the specified due date and time will not be considered for funding.

## **22. Grounds for Rejection**

Proposals WILL be rejected and not considered for funding if:

- A. No abstract was submitted, or if the abstract did not pass the stage 1 scoring criteria.
- B. The proposal is not received by the Energy Commission's Grants and Loans Office by the stated due date and time.
- C. The proposal does not clearly state which Research Areas are addressed by the proposal as defined in Attachment F.
- D. The proposal contains confidential information.
- E. The Applicant proposes a project that has already been addressed or is being addressed.
- F. Research has no connection to the biological impacts of solar energy development or does not address an issue or problem relevant in California.
- G. The proposal contains any intentionally false or misleading information.
- H. The proposal only addresses regulatory requirements that should be borne by the permit applicant.
- I. Lack of signatures or improper signatures on the application cover page (Attachment A)
- J. Amount of non-PIER match funding is less than 15% of the PIER funds requested.
- K. The budget documents contain loaded instead of unloaded rates.

Proposals MAY be rejected and not considered for funding if:

- L. Stage 2 proposal is missing sections listed under “0 **Formal Proposal (Stage 2) Requirements**”.
- M. Stage 2 proposal does not adhere to the guidelines listed under “19”. **Proposal Guidelines (Stage 2).**”
- N. An Applicant submits more than one abstract for the same project or for minor variations of the same project.
- O. A member of the applicant's project team has a prior record of poor performance as part of any previous PIER grant or contract.

### **23. Amendment or Cancellation of this Solicitation**

The Energy Commission reserves the right to amend or cancel this solicitation. It is the policy of the Energy Commission not to solicit proposals unless there is a bona fide intention to award an Agreement. The Energy Commission reserves the right to do any of the following:

- Cancel this solicitation.
- Increase or decrease the amount of funds available under this solicitation.
- Amend or revise this solicitation as needed.
- Reject any or all proposals received in response to this solicitation.

### **24. Questions**

Additional questions for Stage 1 must be submitted by 4:00 p.m. on February 2, 2010, and may be submitted by email or letter. The questions and answers will be posted on the Energy Commission's website by February 18, 2010. Questions from applicants who have been accepted for Stage 2 must be submitted by 4:00 p.m. on ~~March 30, 2010~~ April 20, 2010.—Answers will be posted on the Energy Commission's website ~~by April 8, 2010~~ by April 28, 2010.— Questions may be directed to and for those parties without internet access; copies of the questions and answers can be obtained by contacting:

Crystal Presley-Willis  
Grant Officer  
Grants and Loans Office  
California Energy Commission  
1516 Ninth Street, MS-1  
Sacramento, CA 95814  
Telephone: (916) 654-5067  
Email: [cpresley@energy.state.ca.us](mailto:cpresley@energy.state.ca.us)

### **25. Attachments**

- A. Grant Proposal Cover Page and Instructions
- B. Statement of Work Template
- C. Instructions for the Statement of Work Template

- D. Budget Forms
- E. Schedule of Products and Due Dates and Instructions
- F. Targeted Research, Development, and Demonstration Areas
- G. Stage 1: Evaluation/Scoring Criteria
- H. Stage 2: Formal Proposal Scoring Criteria
- I. Preference Points for California-Based Entities (CBE)
- J. Questionnaire for CBE Preference Points
- K. Prevailing Wage Special Condition Template
- L. Prevailing Wage Compliance Certificate
- M. Prevailing Wage Compliance Qs & As
- N. PIER Terms and Conditions
- O. Content And Format Of Progress Reports – Recommended
- P. Sample Resolutions
- Q. California Environmental Quality Act (CEQA) Compliance Forms

## **ATTACHMENT A**

### **Grant Proposal Cover Page and Instructions**

[The application cover page template and instructions for this solicitation is a separate Microsoft Word document. The template can be accessed at [www.energy.ca.gov/contracts](http://www.energy.ca.gov/contracts) as part of this solicitation package.]

## **ATTACHMENT B**

### **Statement of Work Template**

[The application Statement of Work template for this solicitation is a separate Microsoft Word document. The template can be accessed at [www.energy.ca.gov/contracts](http://www.energy.ca.gov/contracts) as part of this solicitation package.]

## ATTACHMENT C

### Instructions for the Statement of Work Template

The Statement of Work Template contains the framework to use to complete the Statement of Work. The template has instructions in blue type within < > that are to be deleted as it is filled out. The following are additional instructions for the items in the Statement of Work. At the end of these instructions, there are examples of Technical Tasks to provide guidance in drafting your own.

#### I. Technical Task List

Insert the Task numbers and Task names for the project. Put an "X" in the CPR column next to the Tasks that contain a Critical Project Review. Add additional rows as necessary.

#### II. Key Name List

List key parties within the agreement as described below. See Terms and Conditions for more information regarding key parties within the agreement.

**Key Personnel** are employees or consultants who are critical to the outcome of the project and are being paid with PIER funds. Key Personnel have expertise in the project field or experience that is not available from another source. Replacing these individuals may be difficult due to their expertise and may affect the outcome of the project. Since key personnel can come from various organizations working on the agreement, they should be written as follows to avoid confusion: "John Smith – Acme Company"

**Key Subcontractors** are contractors, subcontractors, or vendors who are critical to the outcome of the project and are being paid with PIER funds. Key Subcontractors have expertise in the project field or experience that is not available from another source. Replacing these individuals may be difficult due to their expertise and may affect the outcome of the project.

**Key Partners** are participants in the Project who are not receiving PIER funds and are not providing Match Funds but are integral to the outcome of the Project. Key Partners may be providing space, testing facilities, demonstration sites or may be a manufacturer or other implementer of the Project results. Individual key employees from the Key Partner organizations are listed under "Key Personnel." "Key Partners" are company names.

#### III. Glossary

Spell out each acronym used in the Statement of Work. Also include definitions of odd or unusual terms. Think about the document from the perspective of someone who does not work in the particular industry or discipline.





#### **IV. Problem Statement**

Describe the problem that this research will address in one to two paragraphs maximum.

Describe the scientific and technological baseline that is the current state-of-the-art or the developmental status of the subject technology to be advanced.

Identify entities engaged in development of the subject technology. Identify whether or not the proposed project duplicates or overlaps with other ongoing RD&D. Emphasize past advances that you have made in areas relevant to the proposed work.

Describe the deficiencies that exist for the subject technology. The deficiencies should illuminate the question of *why* the proposed project should be done.

Identify and discuss the principal barriers, key unresolved issues, and knowledge gaps that hinder the development and widespread use of the resource or the products of the proposed research in California. Barriers may be grouped under the following categories, or other categories that the Applicant deems appropriate:

- Scientific and technological – such as insufficient scientific understanding of relevant phenomena and processes, inadequate data acquisition technologies, low reliability, low power density, low energy density, lack of detailed engineering designs and design trade-off analyses, inadequate component development, high cost of fabrication techniques, insufficient field testing, or insufficient field demonstrations.
- Market – such as inadequate consumer knowledge or limited system supply and maintenance infrastructure.
- Institutional – such as regulatory hurdles (e.g., atmospheric emission limitations) or lack of adopted standards.
- Environmental – such as H<sub>2</sub>S emissions, excessive noise, or ground water contamination.

Explain why these barriers have not been addressed by the marketplace or by other institutions.

Explain why the barriers should be addressed at this time. For example, place the proposed work into the context of the spectrum of barriers to widespread deployment and adoption.

#### **V. Goals of the Agreement**

At the beginning of this section, complete the following sentence. Please be succinct.

The goal of this agreement is to ... *<Complete the sentence with a brief description of the goal(s) and how the goal(s) will be met. Goals can be technical, economic or social. Please be brief, two to three sentences maximum.>*

#### **VI. Objectives of the Agreement**

The objectives of this agreement are to ... *<Complete this sentence with the objectives, which are things that will be measurable or knowable at the end of **this** project.>*

If the improvements that your project will make are not amenable to measurement, surrogate performance metrics that can be measured must be given. Describe the methodology or procedure that will be used at the completion of the project to determine if the performance metrics have been achieved.

List and describe technical or economic objectives, or desired conditions outside the project itself that will result from the success of the project.

#### **VII. Task 1.0 Administration**

The administrative tasks must be included in every agreement and the language does not change except for the following:

- Applicants can propose to change Task 1.4 from monthly to quarterly progress reports.
- Applicants can propose to delete or modify Task 1.8, Establish the PAC, and Task 1.9, Conduct PAC Meetings.

Otherwise, do NOT change anything in the administrative tasks.

#### **VIII. Technical Tasks (Tasks 2 through n)**

This is the area in the Statement of Work where the technical work to be performed under this Agreement is set forth. The work effort should be divided into a series of logical, discrete and sequential tasks. Each task has the following components:

- Task Name
- The goal of this task is to ...
- The Recipient shall:
- Products

##### **A. The Goal**

The goal of this task is to ... *<Complete the sentence with a brief description of the goal(s). Please be brief, two to three sentences maximum.>*

##### **B. The Recipient shall ...**

List each individual **activity** with a separate bullet if there are more than two individual activities and begin each bullet with a verb to complete the sentence beginning with "The Recipient shall." Organize activities in the order in which they will occur. Use this section to describe the essential elements of the process you will use to complete the project. The contents of each product shall also be described in this section.

**For Example:**

**The Recipient shall:**

- Prepare the X Test Plan. This plan shall include, but is not limited to ...
- Conduct research in accordance with the X Test Plan.
- Prepare the X Test Results Report. This report shall include, but is not limited to, the following ...

Please note that if a project is for demonstration, or if a project involves testing, one of the tasks should be Test Plan preparation. The Test Plan should include considerations such as the number of hours of operation, the type of monitoring to be preformed, the manner in which data will be validated, analyzed, and reported.

**C. Products:**

**Product(s):**

- *<Insert 1st product (name only)>*
- *<Insert 2nd product (name only)>*

Only the names of each product shall appear in the “Products” section. Use exactly the same name to identify a product (report, data set, project plan, etc.) in the activity and in the list of products.

Products incorporate the knowledge and understanding gained by performing the activities, and are submitted to the Energy Commission for review, comment and approval. Products include, but are not limited to, written reports that describe methods, test plans, results of testing, analysis of data, conclusions, and recommendations for future study, workshop agendas and summaries, description and photographs of equipment/product developed, summaries of advisory group meetings, computer software with written instructions for data input and use of the software, if intended for public or Energy Commission use, and production prototypes. The summaries of the Products should be sufficiently detailed to be of use to stakeholders and other researchers. The level of detail should be sufficient for an observer to assess whether the project objectives and goals have been successfully met.

**D. Task n-1 Technology Transfer Activities**

Change the language as appropriate for your project.

**E. Task n Production Readiness Plan**

Change the language as appropriate for your project

**IX. Examples of Different Types of Technical Products** *(These are examples, which you may modify for use in your project. You may create other products as needed, but please adhere to the patterns shown.)*

## 1. Written Notification

- Provide a Written Notification regarding \_\_\_\_\_, to the Commission Project Manager. *(Give it a unique name based on the content and the project.)* The letter shall include but is not limited to written documentation that the \_\_\_\_\_ is ready for *(testing, viewing, submission for certification, etc.)* and the date such *(testing, viewing, submission for certification, etc.)* shall begin, and shall include photographs.

**Product:** Written Notification regarding \_\_\_\_\_

## 2. Test Plans

- Prepare the \_\_\_\_\_ Test Plan. *(Give it a unique name, such as the Site A Test Plan. Test plans and testing procedures should be described in detail including factors such as instrumentation, data collection, data analysis, statistical analyses, and performance curves. Test results shall include relationships among performance, efficiency, emissions, temperature, pressure and all other parameters that qualify and quantify the subject technology.)* The Test Plan shall include, but is not limited to:
  - a description of the process to be tested;
  - the rationale for why the tests are required;
  - predicted performance based on calculations or other analyses;
  - test objectives and technical approach;
  - a test matrix showing the number of test conditions and replicated runs;
  - a description of the facilities, equipment, instrumentation required to conduct the tests;
  - a description of test procedures, including parameters to be controlled and how they will be controlled; parameters to be measured and instrumentation to measure them; calibration procedures to be used; recommended calibration interval; and maintenance of the test log;
  - a description of the data analysis procedures;
  - a description of quality assurance procedures;
  - contingency measures to be considered if the test objectives are not met;
  - *<add additional bullets specific to the project as needed>.*

**Product(s):**

- Draft \_\_\_\_\_ Test Plan
- Final \_\_\_\_\_ Test Plan

**3. Interim Reports** (*This applies to all product reports. Examples include task and subtask reports, test reports, data sets, databases and computer model development or application. Monthly reports and the final report are treated separately as shown in the Statement of Work.*)

- Prepare the \_\_\_\_\_ Report (*Give it a unique name, such as the ABC Test Report or 123 Database. If an interim report is based on earlier work in this project, then the titles should relate to each other. After the title insert a description of the product.*) This report shall include, but is not limited to, the following: (*List the elements of the report in separate bullets.*)

For example, if the Interim Report is a Test Report, use the following description:

The Test Report shall include, but is not limited to, the following:

- the Test Plan;
- test results;
- analysis;
- conclusions;
- recommendations;
- photographs as appropriate;
- *<add additional bullets specific to the project as needed>.*

For example, if the Interim Report is a Task or Subtask Report, use the following description:

The Task or Subtask Report shall include, but is not limited to, the following:

- the goal of the task or subtask;
- the description of the approach used;
- list of activities performed;
- description of the results and to what degree the goal was achieved;
- significant issues encountered and how they were addressed;
- a discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project;
- photographs as appropriate;
- *<add additional bullets specific to the project as needed>.*

**Product(s):**

- Draft \_\_\_\_\_ Test (Task, Database, etc.) Report
- Final \_\_\_\_\_ Test (Task, Database, etc.) Report

4. Bills of Materials or Equipment Lists

- Prepare a Bill of Materials (or Equipment List) for \_\_\_\_\_. (*Give it a unique name.*). This document shall include but is not limited to:
  - a description of each item;
  - test protocols and codes applicable to each item;
  - cost estimates or bids for each item.

**Product:** Bill of Materials (or Equipment List) for \_\_\_\_\_

5. **Site Selection (optionally, this can be incorporated into a Test Plan)**

- Determine Site Selection Details for the field test site, including but not limited to the following, and obtain Commission Project Manager approval:
- Type of site, i.e., <Sites for Wind Energy Storage Projects>
  - Residential
    - Specify type of dwelling: single family, multiple family including number of units, apartment, townhouse, etc.
    - Specify age of dwelling: new home construction, model home, existing home (indicate approximate age)
  - Commercial (specify warehouse, retail, office, etc.) <Sites for Wind Energy Storage Projects>
- Number of sites
- Location, i.e., climate zone, area, or city
- Timing of testing (i.e., season or month), length and frequency of testing
- Agreement with site owner, to address issues such as:
  - Details of test, including dates, length of test
  - Site owner input and feedback on test conditions
  - Access to site
  - Insurance and indemnity
  - Contingency if damages are caused by test
  - Equipment installation and removal

Once the site is selected, Recipient shall enter into an agreement with the site owner and make a copy of the agreement available to the Commission Project Manager upon request.

**Product:** Written Notification of Site Selection

## **ATTACHMENT D**

### **Budget Forms**

[The budget template and instructions for this solicitation is a separate Microsoft Excel file. The template can be accessed at [www.energy.ca.gov/contracts/](http://www.energy.ca.gov/contracts/) as part of this solicitation package.]



## **ATTACHMENT E**

### **Schedule of Products and Due Dates and Instructions**

[The template and instructions for the Schedule of Products and Due Dates for this solicitation is a separate Microsoft Excel document. The template can be accessed at [www.energy.ca.gov/contracts/](http://www.energy.ca.gov/contracts/) as part of this solicitation package.]

## **ATTACHMENT F**

### **Targeted Research, Development, and Demonstration Areas**

This grant solicitation is directed at research, development and demonstration work that will help minimize the negative biological impacts of solar projects within the Mojave and Colorado Desert Regions. This is a competitive grant solicitation sponsored by the California Energy Commission's Public Interest Energy Research (PIER) Energy-Related Environmental Program to investigate one or more of the following:

- A. Innovative mitigation strategies other than land acquisition that would effectively offset the negative impacts of California solar energy development on special-status species and sensitive plant communities; and/or rigorous validation of and/or improvements to frequently recommended mitigation measures (for example, habitat restoration, fencing).
- B. New or enhanced habitat suitability models that help to: predict the distribution of special-status plants and animals and sensitive plant communities within the Mojave and Colorado Desert regions; evaluate the impact of solar energy technologies, plant designs, and/or solar project site selection on special-status plants and animals and sensitive plant communities; and provide planning tools to assist in the siting, design, permitting, and mitigation of solar energy projects.
- C. An improved impact assessment on species abundance and viability of relocating desert tortoise and/or other special-status plants and animals away from solar energy sites using currently established protocols; and/or develop improved protocols for relocation.
- D. Numerical thresholds for viability of listed species populations (i.e., minimum viable population size) in regions within the Mojave and Colorado Desert regions targeted for utility scale solar energy development.
- E. New or improved framework for conducting cumulative impacts analysis of solar energy development on sensitive biological resources.

## ATTACHMENT G

### Stage 1 Evaluation/Scoring Criteria

Project Screening Criteria – Pass/Fail	
Stage 1 Abstract – Eight (8) Pages Maximum (12 Point Font Minimum)	Pass/Fail
<b>Project Must Pass ALL Criteria Below to Progress to Submission of Complete Proposal for Scoring, Ranking, Award, and Funding Stages</b>	
<b>1. Project Summary That Includes The Following</b> <ul style="list-style-type: none"> <li>a. Clearly describes the proposed research, development, and/or demonstration project and the current state of knowledge and capabilities in the scientific or technological area of the project.</li> <li>b. Clearly states the purpose, scope, and goals of the proposed research, development, and/or demonstration project, and outlines the issues the project will address.</li> <li>c. Summarizes the technical approach and principal tasks required to accomplish the project goals and objectives.</li> <li>d. Describes the relevant technical, siting, and implementation issues that must be addressed to accomplish project's goals and objectives and ensure timely completion.</li> <li>e. Explains why the project is unique, and not duplicative.</li> <li>f. Describes the duration and schedule of the project.</li> <li>g. Includes the grant amount requested and how much match, either in cash or in-kind service or equipment, will be provided.</li> <li>h. Clearly lists research deliverable(s)/result(s).</li> </ul>	<input type="checkbox"/> <b>Pass</b>  <input type="checkbox"/> <b>Fail</b>
<b>2. Addresses Targeted Research, Development and Demonstration Areas</b> <ul style="list-style-type: none"> <li>a. Unequivocally belongs to at least one of the categories identified in the Research, Development, and Demonstration Areas (see Attachment F).</li> </ul>	<input type="checkbox"/> <b>Pass</b>  <input type="checkbox"/> <b>Fail</b>
<b>3. Project Categorical Budget</b> <ul style="list-style-type: none"> <li>a. Categorical budget including labor, overhead, indirect, equipment, travel, miscellaneous, subcontractors, and total budget.</li> </ul>	<input type="checkbox"/> <b>Pass</b>  <input type="checkbox"/> <b>Fail</b>
<b>4. Match Funding</b> <ul style="list-style-type: none"> <li>a. The amount of Match Funding must equal fifteen (15%) or more of the amount of funding being requested from PIER. For example if \$1M is requested from PIER, match funding equal to at least \$150K should be identified from other non-PIER sources. Match funding can be in the form of in-kind services, equipment (hardware/software), travel, or cash.</li> </ul>	<input type="checkbox"/> <b>Pass</b>  <input type="checkbox"/> <b>Fail</b>

<p><b>5. Proof of Technical Feasibility, Reliability and Safety</b></p> <p>a. The abstract demonstrates the feasibility of the proposed project, describes a robust methodology, and convincingly argues that the results of the proposed project will be highly relevant to renewable energy development in the desert, and resolving its environmental impacts. If prior data exists from previous work leading up to the proposed project it tells how to and where to access the validated, detailed data from this previous work.</p>	<p><input type="checkbox"/> <b>Pass</b></p> <p><input type="checkbox"/> <b>Fail</b></p>
<p><b>6. Appropriate Site for Proposed Project</b></p> <p>a. The project has a committed research and/or demonstration site or workplace and provides a name and contact information to verify the availability of the location. The research and/or demonstration site where the project is to be carried out is consistent and appropriate to the proposed work.</p> <p>b. If the proposed project involves field work, the size, location, and environment of the research and/or demonstration site is suitable to meet the objectives of the proposed work.</p>	<p><input type="checkbox"/> <b>Pass</b></p> <p><input type="checkbox"/> <b>Fail</b></p>
<p><b>7. Permitting Activities</b></p> <p>a. Lists any prior or planned activities related to the permitting of desert-based energy projects by the applicant, its employees, or any subcontractors used for this proposal. The applicant shall also list any agreements or working relationships with anyone who has a permit application for a desert-based energy development that will be pending at the time of the grant award; and/or that is contesting a permit for a desert-based energy development that will be pending at the time of the grant award.</p>	<p><input type="checkbox"/> <b>Pass</b></p> <p><input type="checkbox"/> <b>Fail</b></p>

## **ATTACHMENT H**

### **Stage 2 Formal Proposal Scoring Criteria**

#### ***Proposal Scoring***

##### **Overview of the Technical Evaluation Scoring Process**

To reach stage 2 proposals must have passed the abstract evaluation of Stage 1. Proposal applications for Stage 2 must fully comply with the Proposal Requirements and follow the Proposal Guidelines to be eligible for the technical evaluation scoring by the Technical Evaluation Committee.

##### **Confidential Process**

During the evaluation process, all proposals will be kept confidential. Other than providing a list of the proposals that passed and failed Stage 1, the entire evaluation process from receipt of proposals to the posting of the Notice of Proposed Award after Stage 2 is confidential. However, proposals and all submittals will become public records after the Commission completes the evaluation and/or scoring process and the Notice of Proposed Awards is posted or the RFP is cancelled.

Please remember, no confidential information will be accepted during the proposal and selection phase of this solicitation. If any confidential information is submitted, the entire proposal will be rejected and will not be eligible for funding. Proposals containing confidential information will be returned to the Applicant.

##### **Technical Evaluation Committee**

Proposals that pass the initial screening according to the Proposal Requirements and Proposal Guidelines will be scored by a minimum of three technical evaluators. Technical evaluators may be from academia, environmental organizations, industry, or government.

##### **Scoring and Selection Process**

Each proposal will be scored by the Technical Evaluation Committee utilizing the following process:

1. Each Committee Member will independently score each proposal from zero (0) to sixty (60) for each criterion described in the next section, based upon the information provided by the Applicant's proposal.
2. Each criterion score will then be multiplied by the specified weighting factor to obtain the weighted points for that criterion.
3. The weighted points for each proposal will be summed to provide each Committee Member's total weighted score.
4. The final score for each proposal will be the average score of all Committee Members.

Out of 600 total possible points, a Proposal must garner a minimum of 480 points to pass technical evaluation. The list of passing proposals will be submitted to the Energy Commission Research and Development and Demonstration (RD&D Committee) for funding recommendation. Recommended awards must be approved by the full Energy Commission at an Energy Commission Business Meeting.

##### **Scoring Scale**

Each proposal will be scored as shown in [Table 2](#) below on the degree to which it meets each of the Technical Evaluation Criteria (with the exception of the Match Funding Criteria (7) that will be scored according to [Table 3](#)).

**Table 2**

0	Not responsive to the criterion
10	Response is minimal
20	Responds satisfactorily to some relevant considerations under the criterion
30	Responds satisfactorily to most relevant considerations under the criterion
40	Responds satisfactorily to all relevant considerations under the criterion
50	Responds completely, accurately, and convincingly to all relevant considerations under the criterion
60	Response is complete, accurate, and superior, both quantitatively and qualitatively for all relevant considerations under the criterion

#### **Technical Evaluation Criteria**

The Technical Evaluation Committee will score each Proposal based on the following seven (7) Technical Evaluation Criteria:

**1) Proposal Addresses Specific Research Area Listed In Attachment F.** (Weighting Factor: 2; Maximum Weighted Score: 120)

- Unequivocally belongs to at least one of the Research, Development, and Demonstration (RD&D) areas identified in Attachment F (Targeted Research, Development, and Demonstration Areas), and clearly explains how the project goals would help advance that area.
- Convincingly demonstrates the relevance of the proposed project to the development of renewable energy in the desert. Identifies scientific, technological, environmental, and/or policy barriers to the development of renewable energy in the desert and justifies the proposed project in terms of its potential to help overcome one or more of these barriers.
- Proposal's Statement of Work is feasible and appropriate to the chosen RD&D topic and project goals.
- Proposal contains a thorough survey of relevant previous work in the literature, especially of any PIER-sponsored research.

**2) Proposed Research Uses Robust Methodology And Identifies Clear, Meaningful, and Measurable Objectives.** (Weighting Factor: 2; Maximum Weighted Score: 120)

- The proposal lists and describes clear, meaningful, and measurable objectives that will logically lead to the project goals.
- The research method is rigorous and robust and is focused on achieving the project's objectives and goals.

**3) The Project Description, Products and Due Dates are Reasonable and Appropriate.** (Weighting Factor: 1; Maximum Weighted Score: 60)

1. Project Description demonstrates a clear, reasonable, appropriate and complete effort.
  2. Degree to which the Project Description is clearly written and internally consistent.
  3. Project Description is composed of a series of interconnected, logical, and discrete tasks.
  4. Project Description lays out an approach and plan that is practical and feasible for accomplishing the stated objectives. The Work Schedule reasonably appropriates time and funds with respect to the sequences of tasks, level of effort allocated per task, and the use of labor, equipment, and facilities. If the research involves a particular environmental aspect – the schedule fits the necessary time of year to conduct the research.
- 4) **The Project Budget is Reasonable and Appropriate.** (Weighting Factor: 1; Maximum Weighted Score: 60)
- The project budget is justified by the planned products. In other words the products to be delivered by the proposed project are worth the expenditure of PIER funds requested.
  - Each item of the budget is appropriate considering: (1) the significance of the barriers, issues, and/or knowledge gaps being addressed, (2) the project's objectives and goals, and (3) the level of effort described in the Project Narrative.
  - The budgets show that key personnel will be committed to the project for the appropriate number of hours and functions to accomplish the tasks and products, and for the activities described in the Project Narrative.
- 5) **The Principal Investigator and the Project Team are Well Qualified to Conduct the Project.** (Weighting Factor: 1; Maximum Weighted Score: 60)
- The Applicant describes in detail, with substantiation, the Applicant's past and current work in the RD&D area and/or related areas. Accomplishments (not just activities) are described.
  - The Proposal demonstrates the Applicant's awareness of current and prior work by others in the proposed research area.
  - Publishing track record such as peer-reviewed journals.
  - The proposal convincingly demonstrates, based on education, training, and past experience that the applicant and project team are capable of conducting all technical, administrative, and budgetary functions and responsibilities, including the ability to control cost, maintain the schedule, and report results and accomplishments in an effective manner.
  - Lists any prior or planned activities related to the permitting of desert-based energy projects by the Applicant, its employees, or any subcontractors used for this proposal. The Applicant also lists any agreements or working relationships with anyone who has a permit application for a desert-based energy development that will be pending at the time of the grant award; and/or that is contesting a permit for a desert-based energy development that will be pending at the time of the grant award.

6) **Overall technical merit and degree to which the project is likely to succeed, including a consideration of the degree to which the proposal goes beyond the basic proposal requirements.** (Weighting Factor: 2; Maximum Weighted Score: 120)

- Strength of the research idea and methodological approach.
- Importance of the project within the context of reducing or avoiding negative environmental impacts of desert renewable energy development.
- Likelihood that this project is feasible and is likely to succeed in terms of satisfactory completion within the project timeframe and budget, and producing scientifically and/or technologically meaningful as well as policy-relevant results.
- Likelihood that the project will not encounter problems or obstacles with respect to site access, permitting, coordination and cooperation with any land owners, land managers, independently or publicly owned utilities, or any other parties with potential legal power to hinder or halt the project.

7) **Match Funding.** (Weighting Factor: 1; Maximum Weighted Score: 60)

- Amount of non-PIER matching funds beyond the minimum 15% of requested PIER funds.

**Table 3.** Scoring for Match Funding – technical evaluation criteria ~~77~~.

0	Match funding equals 15% of PIER funding
10	Match funding is greater than 15% but less than or equal to 32% of PIER funding
20	Match funding is greater than 32% but less than or equal to 49% of PIER funding
30	Match funding is greater than 49% but less than or equal to 66% of PIER funding
40	Match funding is greater than 66% but less than or equal to 83% of PIER funding
50	Match funding is greater than 83% but less than or equal to 100% of PIER funding
60	Match funding is greater than 100% of PIER funding

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## ATTACHMENT I

### Preference Points for California-Based Entities

Pursuant to Public Resources Code Section 25620.5(h & i), the California Energy Commission's Public Interest Energy Research (PIER) Program must give a priority to "California-based entities" (CBEs) when making awards. To implement this law, the Energy Commission will award preference points if the proposal meets the criteria for a CBE as described below.

An Applicant must meet all of the following to receive CBE preference points:

1. The proposal must include a CBE as either the prime contractor/recipient or a subcontractor. A CBE is a corporation or other business form organized for the transaction of business that:
  - Either has its headquarters or an office in California AND
  - Substantially manufactures the product or substantially performs the research within California that is the subject of the award.
2. The budget must show that the CBE(s) will receive 50% or more of the PIER funds awarded.
  - If the CBE is the prime contractor/recipient, then this means that no more than 50% of the awarded PIER funds can be subcontracted to non-CBEs.
  - The 50% applies to the PIER funds and does not include the match funding. For example, if a proposal has a PIER budget of \$100,000, then regardless of how much match funding is pledged, the budget must show \$50,000 or more in PIER funds going to CBEs.
  - The 50% requirement can be made up of multiple CBEs. For example, a proposal in which a prime contractor/recipient CBE will receive 25% of PIER funds and a subcontractor CBE will receive 25% of PIER funds, meets this 50% requirement.
3. The proposal must receive a passing score prior to any preference points being added.

The preference points will be awarded as follows:

<b><i>Technical Score (prior to preference points being added)</i></b>	<b><i>Additional Points</i></b>
480-500	12
501-530	19
531-560	25
561-580	32
581-600	38

The total possible points, not counting any preference points, for this solicitation is 600. The minimum passing score is 480 points. Each proposal that has a score of 480 points or more and qualifies for this preference will receive additional points based on the table above.

Applicants wanting to qualify for these preference points must fill out the attached form. Otherwise eligible Applicants who do NOT submit the attached form with the proposal shall NOT be eligible for the CBE preference points.

## **ATTACHMENT J**

### **Questionnaire for California-Based Entity (CBE) Preference Points**

Please answer all questions below for **each** CBE. Failure to provide accurate, detailed, and complete information may result in not receiving CBE preference points.

1. State the full legal name of the CBE and its business form (e.g., corporation, limited liability company, sole proprietorship).
2. Indicate whether the CBE is the prime contractor/recipient or a subcontractor.
3. Indicate whether the CBE has its headquarters or an office for the transaction of business in California. Please indicate the street address.
4. Provide a brief description of the product or research that is the subject of the proposal.
5. List the location(s) in California where the product will be manufactured or the research will occur and provide a brief description of the facility at the location (for multiple locations, please describe what portion will be completed at each location).
6. Indicate whether any part of the research or product manufacturing will occur outside of California. If so, please explain what portion and how a substantial portion will occur in California.

## **ATTACHMENT K**

### **Prevailing Wage**

#### **PUBLIC WORKS AND PAYMENT OF PREVAILING WAGE**

##### **A. Recipient/General Requirements**

1. Recipient shall comply with state prevailing wage law, Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000, for any "public works" (as that term is defined in the statutes) performed on the Project funded by this Agreement. For purpose of compliance with prevailing wage law, the Recipient shall comply with provisions applicable to an awarding body. Compliance with state prevailing wage law includes without limitation: payment of at least prevailing wage as applicable; overtime and working hour requirements; apprenticeship obligations; payroll recordkeeping requirements; and other obligations as required by law.
2. Recipient shall certify to the Energy Commission on each Payment Request Form, that prevailing wages were paid to eligible workers who provided labor for work covered by the payment request and that the Recipient and all contractors complied with prevailing wage laws. Prior to the release of any retained funds under this Agreement, the Recipient shall submit to the Energy Commission a certificate signed by the Recipient and all contractors performing public works activities stating that prevailing wages were paid as required by law.

##### **B. Flowdown Requirements**

Recipient shall ensure that all agreements with its contractors to perform work related to this Project contain the following provisions:

1. Contractor shall comply with state prevailing wage law, Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720; and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000, for all construction, alteration, demolition, installation, repair or maintenance work over \$1,000 performed under the contract. Contractor's obligations under prevailing wage laws include without limitation: pay at least the applicable prevailing wage for public works activities performed on the Project; comply with overtime and working hour requirements; comply with apprenticeship obligations; comply with payroll recordkeeping requirements; and comply with other obligations as required by law.
2. Contractor shall ensure that the above requirements are included in all its contracts and any layer of subcontracts for activities for the Project.

## ATTACHMENT L

### Prevailing Wage Compliance Certificate

After the public works<sup>1</sup> activities funded by this Agreement are complete, Recipient must fill out and sign this certificate and obtain the signatures from all of its contractors and any layer of subcontractors involved in public works funded by this Agreement.

***This certificate must be completed and submitted to the Energy Commission Project Manager prior to the release of the retained funds under this Agreement.***

Recipient:

Energy Commission Agreement Number:

Date Public Works Completed:

Recipient hereby certifies as follows:

1. State prevailing wage law, Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000, has been complied with for the “public works” (as that term is defined in the statutes) funded by this Agreement, including payment of at least prevailing wage as applicable; overtime and working hour requirements; apprenticeship obligations; payroll recordkeeping requirements; and other obligations as required by law.
2. All contracts and every layer of subcontracts involving public works funded by the above-referenced Agreement contained requirements that the contractor or subcontractor comply with prevailing wage law and pay prevailing wages in accordance with the requirements of the Labor Code.
3. The contractors and subcontractors have maintained labor records as required by the Labor Code and such records shall be made available upon request.
4. The undersigned Recipient acknowledges that disbursement of the retention by the California Energy Commission is expressly made in reliance upon the representations made in this certification.

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<sup>1</sup> Public works is defined in Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720.

**Recipient:**

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

Each contractor and subcontractor performing public works (e.g., construction, alteration, demolition, installation, repair or maintenance work) for the Project must sign below. Include additional pages if necessary.

Contractors and subcontractors hereby certify as follows:

1. The contract with the Recipient or the Recipient's contractor to perform work funded by the above-referenced Agreement contained requirements that the contractor and all its subcontractors comply with prevailing wage law and pay prevailing wages in accordance with the requirements of the Labor Code.
2. Prevailing wages have been paid as required by law.
3. Contractor and all its subcontractors have maintained labor records as required by the Labor Code and such records shall be made available upon request.
4. The undersigned acknowledges that disbursement of the retention by the California Energy Commission to the Recipient is expressly made in reliance upon the representations made in this certification.

**Construction Contractor #1**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

**Construction Contractor #2**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

**Construction Contractor #3**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

**Construction Contractor #4**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

**Construction Contractor #5**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

**Construction Contractor #6**

Company Name:

Signature of Authorized Representative: \_\_\_\_\_

Printed/Typed Name:

Title:

Date:

## **ATTACHMENT M**

### **Prevailing Wage Compliance Questions and Answers**

#### **1. Is Payment of Prevailing Wage Required?**

Yes. Any Recipient whose project involves “public works” as the term is defined in defined in Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720, must pay prevailing wages in accordance with the law.

#### **2. Does prevailing wage apply to private entities?**

Yes. A private entity must pay prevailing wage under California law if the project involves public works.

#### **3. How do I know if my project involves public works?**

The California Labor Code beginning at section 1720 deals with this issue. Labor Code sections 1720 and 1771 define public works as:

- Construction (includes work performed during the design and preconstruction phases of construction including but not limited to, inspection and land surveying work).
- Alteration
- Demolition.
- Installation.
- Repair work.
- Maintenance work.

These Labor Code sections can be found online at <http://www.leginfo.ca.gov/calaw.html>.

Below are some examples (this list is not exhaustive) of the types of activities that typically lead to finding that a project is a public work:

- Cement work such as pouring a cement pad.
- Site preparation such as grading.
- Surveying.
- Electrical work such as wiring.
- Carpentry work.
- Limited inspection activities.

#### **4. What kind of trades or workers must be paid prevailing wage?**

The California Department of Industrial Relations (DIR) Division of Labor Statistics and Research (DLSR) makes the final determination on which trades and/or workers are covered by

prevailing wage laws. DLSR maintains a list of the covered trades/workers that are entitled to prevailing wage for public works commercial construction projects. See [www.dir.ca.gov/dlsr/statistics\\_research.html](http://www.dir.ca.gov/dlsr/statistics_research.html) or call the DLSR Prevailing Wage Hotline (415) 703-4774 for more information about these trades.

Generally, workers such as the following would be covered trades:

- Operating engineer (heavy equipment operator)
- Surveyor
- Carpenter
- Cement Mason
- Electrician
- Laborer

The following types of workers usually would NOT be covered trades entitled to prevailing wage:

- Engineer
- Project superintendent / construction manager / project manager
- Architect
- Planner
- Computer programmer

The above examples are for general information only. If you have questions about whether a worker is in a covered trade requiring payment of prevailing wages, you should check directly with DIR.

#### **5. What if I am unsure whether my project involves public works and prevailing wage must be paid? How Should I Budget if I am Unsure About Prevailing Wage?**

You are encouraged to determine if your project involves public works as soon as possible. In order to determine if your project is a public work, you will need to contact the California Department of Industrial Relations (DIR). They can be reached at (415) 703-4774. If you do not know whether your project is a public work and you have not obtained a determination from DIR that the project is not a public work, you must budget with the assumption that the project is a public work and comply with the prevailing wage laws, including but not limited to the payment of prevailing wages.

On the budget, please indicate whether your budget includes amounts for the payment of prevailing wage. You must indicate "yes" unless you have received a determination from DIR that the project is not a public work.

If you do not budget for prevailing wage, and it is later determined that the project involves public works and prevailing wage must be paid, you may be liable for damages and penalties. You also cannot later increase your grant award if it is determined that prevailing wages apply and increase project costs higher than budgeted. The amount requested in your proposal is the maximum that will be paid. Any increased costs for payment of prevailing wage must be paid with match funds. The Energy Commission's grant award amount does not change or increase if the applicant's costs increase for any reason.



**6. How do I get assistance in determining whether the project involves public works?**

First, call the DLSR Prevailing Wage Hotline, (415) 703-4774. The Prevailing Wage Hotline can frequently give advice quickly on routine questions. If the Prevailing Wage Hotline is unable to answer your question, you will need to write to the Director of DIR for a coverage determination on whether your project involves public works. You would include all the relevant facts and documents related to the project. DIR regulations, Title 8 California Code of Regulations, section 16001(a)(1), provides that any interested party may file a request with the Director of DIR to determine coverage under the prevailing wage laws. The request can be either for a specific project or type of work to be performed that the interested party believes may be subject to or excluded from coverage as public works under the Labor Code. The full text of DIR's regulations can be found at: <http://ccr.oal.ca.gov>, (Title 8, Division 1, Chapter 8, Subchapter 3, Article 2). Send requests for a coverage determination to:

Department of Industrial Relations  
Office of the Director  
455 Golden Gate Avenue  
San Francisco CA 94102

**7. How long will it take to get an answer?**

We do not know, but hope that the question can be asked and answered informally and quickly through the Prevailing Wage Hotline. If you need to submit a request to the Director of DIR, it will take longer to get a coverage determination.

**8. What happens if I make a request to DIR but do not have a decision, or am still unsure whether prevailing wage must be paid, by the time the Energy Commission makes an award at a business meeting, or by the time I execute the grant agreement?**

In this case, the Energy Commission would execute a grant agreement with a budget that assumes prevailing wage is required. If the Recipient, prior to performing the activities in question, then receives a determination from DIR that the project is not a public work, then the Energy Commission can execute an amendment with the Recipient to decrease the budget accordingly. The prevailing wage terms and conditions can also be removed.

**9. What if I submit a proposal to the Energy Commission with a project that I say is not a public work, and the Energy Commission believes that it might be a public work? How would we resolve our differences?**

We would request that you first call the Prevailing Wage Hotline. If you do not receive an answer, we would request that you write a letter to DIR and ask DIR to make the decision. If DIR says the project is a public work, then you will need to pay prevailing wages. If you do not obtain a DIR determination that the project is not a public work requiring the payment of prevailing wage, then you must assume that the project is a public work and comply with the prevailing wage laws, including paying prevailing wages.

**10. If my project is a public work, how do I know what prevailing wages are required in order to prepare a budget?**

If your project is a public work, please submit your budget with the applicable prevailing wage for each trade entitled to prevailing wage as determined by DLSR. For prevailing wage rate information for commercial projects, see [www.dir.ca.gov/dlsr/statistics\\_research.html](http://www.dir.ca.gov/dlsr/statistics_research.html) or call the Prevailing Wage Hotline (415) 703-4774. If your project involves residential construction, the rates are not listed on DIR's website, and you must call the DLSR Prevailing Wage Hotline.

**11. What do I do if workers will be used who do not fit neatly into one of the categories on the DIR website?**

Contact DLSR and describe the type of trade you anticipate will be required in your project and ask whether there is an existing prevailing wage already set by DLSR.

**12. Does prevailing wage apply to a public entity that performs project work with its own employees?**

No.

**13. If my project is considered a public work, then are there any special requirements?**

Yes. For example, the grantee must make sure that covered workers are paid prevailing wage. There are other requirements, such as keeping payroll records, complying with working hour requirements, and apprenticeship obligations. See the Labor Code and the sample terms and conditions, Special Condition regarding Prevailing Wage.

## **ATTACHMENT N**

### **PIER Terms and Conditions**

[Examples of the PIER Terms and Conditions are given in a separate file . The files can be accessed at [www.energy.ca.gov/contracts/](http://www.energy.ca.gov/contracts/) as part of this solicitation package.]

## ATTACHMENT O

### Content and Format of Progress Reports – Recommended

**PROGRESS REPORT for**  
**Project Title, Agreement Number**  
Month, Year  
Recipient Project Manager:  
Commission Grant Manager:

**What we planned to accomplish this period**

[This is taken directly from the section on “What we expect to accomplish during the next period” from the last progress report.]

**What we actually accomplished this period**

[Concise description of major activities and accomplishments.]

**How we are doing compared to our plan**

[Explain the differences, if any, between the planned and the actual accomplishments. Describe what needs to be done, if anything, to get back on track.]

**Significant problems or changes**

[Describe any significant technical or fiscal problems. Request approval for significant changes in Statement of Work, revised milestone due dates, changes in key personnel assigned to the project, or reallocation of budget cost categories. If none, include the following statement: “Progress and expenditures will result in project being completed on time and within budget.”]

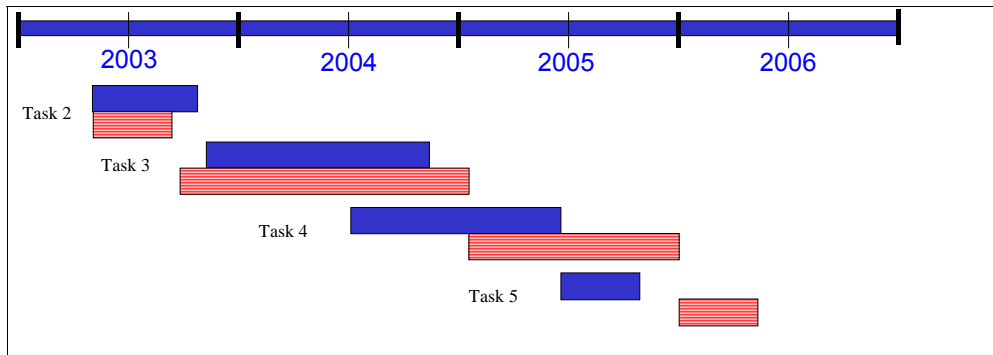
**What we expect to accomplish during the next period**

[Concise description of major activities and accomplishments expected. This will be transferred to the next progress report]

**Status of Milestones and Deliverables:**

[This should be the complete list as contained in the revised Statement of Work. Highlight differences between actual and planned.]

Description	Start Date		Due Date		Status (%)
	Planned	Actual	Planned	Actual	
Identify top 3 assessment candidates	4/15/12	4/15/12	5/1/12	5/1/12	Ontime 100%
Develop test plan	4/20/12	<b>4/10/12</b>	7/7/12	<b>6/10/12</b>	<b>Ahead 100%</b>
Analyze experimental data	5/1/12	<b>6/1/12</b>	1/1/13	<b>2/1/13</b>	<b>Delayed 25%</b>



**Overall schedule for the \_\_\_\_\_ project.**

[Planned is solid blue, actual is red striped. This work flow diagram needs to correlate with the schedule in Exhibit A. This example has been prepared as a Word Picture, but a comparable Excel diagram or Gantt chart is fine.]

**Overview of Fiscal Status:** (See invoices for detail.)

[It is useful to track the rate of expenditure of project funds. The most useful way to do this is to compare the actual expenditure rate with the planned expenditure rate. You get the planned rate at the beginning of the project, so it becomes a baseline. If you change course at a critical project review, you should show the original and the modified baseline, and then track against the new one.]

**Photographs:**

Include photographs where appropriate to document progress. The photos shall be shot with color print film or be very high quality digital photos (at least 300 dpi).

**Evidence of Progress:**

If there is a long time between interim deliverables, then attach evidence of the progress being made (e.g., test data, product mock-ups, field site descriptions, preliminary analyses) to the progress reports to allow the Commission Grant Manager to review project progress and gauge the quality of research results.

The progress report on each project should be 1-2 pages long (plus photographs) and take about 1 hour to prepare for each reporting period.

## **ATTACHMENT P**

### **RESOLUTION**

**Applicants are required to complete Attachment Q Resolution for the final application only, if a Resolution is required. Below is one example of a resolution**

#### **Example 1: RESOLUTION**

**At a minimum, we need the following in the authorizing Resolution:**

- **Brief description of the project.**
- **Acceptance of award up to \$ (specific dollar amount).**
- **Authorization of a person, by title, or authorized designee, empowered to execute agreement and all future documents related to this award.**
- **Resolution approved by your Governing Authority with a signature.**

## **ATTACHMENT Q**

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE FORMS**

[The CEQA compliance forms for this solicitation is a separate Microsoft Word document. The template can be accessed at [www.energy.ca.gov/contracts](http://www.energy.ca.gov/contracts) as part of this solicitation package.]